



Palm Beach Trade Winds



Activated charcoal has received much attention in recent years.

The varied benefits of carbon on turfgrass is not the main issue in this article. The method of application is. Did you ever apply activated charcoal via an airplane crop duster?

Michael Bailey, superintendent of Boca Greens Country Club, Boca Raton, uses this method. A 1977 agronomy graduate of Eastern Kentucky University in his native state of Kentucky, Michael Bailey says, "It's the only way to fly." Let's go back, step by step, and learn how he reached this level of application. First some test plots were done around newly planted trees in early November and tremendous growth was noted to trees and adjoining turfgrass. Areas were under a normal fertilizer program for their area and the temperatures were still warm, 80° to 68°. The material was applied in its straight dry form with a hand cyclone spreader. Rates were two pounds per 1,000 square feet. Michael Bailey noticed the wheel mark patterns between the trees showed up a lush turfgrass. This made him think about all the talk of activated charcoal benefits coming from "raising the soil temperature" as not being the total answer. He concluded the 4 inch width of the wheel patterns would not raise the temperature enough for this response. So seeing his classroom lectures come to life he went to his textbook.

THE NATURE AND PROPERTIES OF SOILS by Nyle Bracly shed some light. "The ratio of carbon to nitrogen in the organic matter of arable soils commonly ranges from 8:1 to 15:1, the median being about 11:1. The carbon/nitrogen ratio in plant material is variable, ranging from 20:1 to 30:1 for legumes to as high as 100:1 in certain strawy residues." Because this ratio is relatively constant in soils, Michael Bailey feels charcoal application lowered his ratio and gave better breakdown of the nitrogen already there. The text also concludes "as decay occurs the carbon/nitrogen ratio of the plant material decreases since carbon is being lost and nitrogen conserved." Previous studies prove seed germination is increased with activated charcoal. The text states, "new growth is better because mature residues, legumes or nonlegumes, have a much higher carbon/nitrogen ratio."

Now Michael Bailey was ready to do a larger area. His next application was with a 300 gallon spray tank using the spray boom on the Tifway 419 rough. To make the material "very flexible" only one pound per 1,000 square feet was

applied. The results were so dramatic he said, "I wanted to continue but was afraid of a paint brush effect if I continued with the spray boom. That is when I concluded that to get the consistant look I wanted, the ultimate spray method was needed, an airplane crop duster." Being located in the truck farming area, west of the turnpike from Boca Raton, this method of application is common. Bob King, Southern Crop Service, in nearby Delray Beach was selected. He was familiar with the area and saw no problem with the airplane. The golf course is ideal for such a method. Bob King needed to know, since he had never sprayed the product, would the material stay in solution to apply properly. A 24-hour suspension test showed all systems were still go.



Because such a large acreage would be done in such a short time, late afternoon when there are no golfers on the front nine holes was ideal as long as sunny, clear, and low wind conditions prevailed. An entire par 5 hole was done. The rate was again back up to the two pounds per 1,000 square feet. The entire hole was done in ten minutes. What efficient labor! Michael Bailey says, "With that test we both knew it could be done with good results."

Mid January saw the real test. Temperatures had been below ideal growing conditions for three weeks. Weather bureau data concluded the past January was the coldest on their records. Behind only the 1977 legendary freeze. The time was right to see any response. All nine green putting surfaces and complete green slopes were done on one side of the course. The rate was still two pounds per 1,000 square feet. Several days later Bob Stanley, club manager, questioned why the contrast between the different nines.

(Continued on Page 15)

Palm Beach Tradewinds

(Continued from Page 9)

Michael Bailey also had golfers tell him that those nine greens were different and wanted to know why? Michael Bailey says, "It's not that the color is so much better but the density and wear factors had improved. The dusted greens also outgrew a previously checked disease problem faster than the nondusted greens."

The cost of application is about \$250 per plane hour. When just greens and slopes are being done the normal \$6.50 per acre rate cannot be used. Many variables will affect the cost. Your distance from the crop service airport, concentration of material (more water hauled = more time), design of course for flight patterns. Material cost is 39-60¢ per pound.

In conclusion Michael Bailey is pleased with the experiment. He says, "Next year I am going to do the whole golf course from tee to green. Because of excellent cold weather response I will skip one of my dry fertilizer applications in the winter and use activated charcoal. The cost will be about 1/3 less and give a better visual result. Soil test will determine what dry fertilizer is applied prior to the cold season. A high nitrogen liquid fertigation program will be used all winter."

Next time you hear an airplane while you are putting, look out! You better hope it's not Michael Bailey and Bob King doing another experiment. ■

Schmeisser Scholarship Awarded

At a recent meeting of the Florida Turf-Grass Association Scholarship and Research Foundation Board of Directors, action was taken to create a scholarship at the Lake City Community College in memory of the late Hans C. Schmeisser, the "Grand Dean" of golf course superintendents.

This scholarship, named The Hans Schmeisser Memorial Award, will be made annually to the Lake City Community College student, enrolled in the Golf Course Operations School, that most exemplifies the qualities that Mr. Schmeisser possessed during his long, and most honored, turf career. This award carries a \$1,000.00 cash compensation.

Mr. Schmeisser, who passed away in October, 1980, had been superintendent of Forest Hill Golf Course, West Palm Beach, for the past 15 years. He was a consultant, golf course designer and builder and superintendent for nearly all of his 88 years. He was made an honorary member of the FT-GA in 1976 and a posthumous confirmant of the Golf Course Superintendent's Association of America "Distinguished Service Award" was made at their 1981 Annual Convention.

One of his sons, Otto, is a member of the FT-GA and is superintendent of the Everglades Club in Palm Beach. His other son, John, is associated with Robert Trent Jones, the noted golf course architect. ■

A New St. Augustine Grass

Something new and exciting has happened on Florida's west coast. It is a new St. Augustine grass "Seville". Seville is flourishing beautifully on Pursley's Sod Farm located on Florida's suncoast approximately 25 miles south of Tampa.

Seville is a semi-dwarf, vigorously growing perennial turf-grass with several outstanding attributes. It has a uniform texture, short internodes, shorter and narrower leaf blades as compared to other St. Augustine varieties like Floratine and Floratam, a tendency to grow horizontal, a rich dark green color, excellent tolerance to shade and cold, moderate seed head production ability and resistance to St. Augustine Decline Virus (SAD). It is not resistant to chinch-bugs but has shown strong tolerance to gray leafspot disease. Seville is somewhat easy to maintain and requires less frequent mowings than other cultivars, an obvious advantage from the standpoint of energy conservation. Moreover, because of shorter and narrower leaf blade, it does not produce excessive thatch. Color retention and spring green up rate are good under moderate fertilizer and cultural management. It has responded well to nitrogen fertilization and supplemental iron.

Seville was developed in 1968 by Dr. Terry Riordan, former Turfgrass breeder at O.M. Scott & Sons Company in Marysville, Ohio. Parent lines used for this cross were originally grown at O.M. Scott's Research Station in Apopka, Florida. Dr. Riordan is currently employed at the University of Nebraska in Lincoln, Nebraska. Soon after the development of Seville, a plant patent was obtained by Dr. Terry Riordan and Jake T. Gruis of O.M. Scott & Co., but now the patent and the exclusive propagation and marketing rights have been acquired by Pursley Sod Farms.

Over the last eight years, Seville's performance has been tested in field at various locations in Florida, Texas and California. Pursley Sod Farm has established several test plots at various locations in Florida and Georgia. Among them are Walt Disney World Tree Farm in Orlando, University of Florida Campus in Gainesville, Maclay Garden State Park in Tallahassee, Deerwood Country Club in Jacksonville and University of Georgia Campus in Athens. Seville is also being grown on a few home lawns in Apopka. ■

Cost of Federal Regulations

OMB now estimates that the annual cost of federal regulations affecting U.S. industry costs \$135 billion. These regulations add 10% across the board to business expenditures. EPA is responsible for 77% of these costs while the Equal Opportunity Administration ranks second with 7% and the Department of Energy at 5%. Federal regulatory costs are now equivalent to 5% of the entire gross national product and costs every American \$500 a year, personally, or \$2,000 per family. (Burt Bohmont, CSU) ■